IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

NORTHERN CALIFORNIA RIVER WATCH, a non-profit corporation,

Plaintiff,

v.

CITY OF HEALDSBURG,

Defendant.
_____/

No. C 01-04686 WHA

FINDINGS OF FACT AND CONCLUSIONS OF LAW AND REMEDIAL ORDER AFTER BENCH TRIAL

INTRODUCTION

The basic question concerns the extent to which a pond formed from an old gravel pit and adjacent wetlands, all alongside the Russian River, are within the jurisdiction of the Clean Water Act. The issue is of importance because defendant City of Healdsburg discharges all of its treated sewage into the pond, which then drains via an aquifer into the nearby Russian River. It does so without an NPDES permit. After a bench trial, this order now holds that an NPDES permit is needed.

PROCEDURAL HISTORY

Plaintiff Northern California River Watch filed the instant citizen suit under the Clean Water Act against defendant City of Healdsburg on December 4, 2001. The complaint was based on allegations that Healdsburg routinely makes unauthorized discharges of pollutants from its waste-treatment facility into Basalt Pond, a pond formed from an old gravel mining pit

alongside the Russian River. The pond and its wetlands, River Watch claims, are part of the "navigable waters of the United States." It is stipulated (No. 28) that plaintiff has standing to assert claims with regard to the Russian River under the Act. Similar allegations formed the basis of a companion suit filed by River Watch on July 9, 2002, against Syar Industries, Inc., as to its wastewater discharges into Basalt Pond. The actions were consolidated. Syar settled. The consent decree was filed on August 5, 2003, bringing to a close the litigation as to Syar.

River Watch and Healdsburg filed cross-motions for summary judgment. The Court granted partial summary judgment in favor of River Watch, finding that Healdsburg (i) discharged (ii) treated wastewater (iii) from a pipe extending from its treatment plant into Basalt Pond (iv) without an NPDES permit. On the summary-judgment record presented, however, whether Basalt Pond was within the "navigable waters of the United States" remained an open question. A bench trial commenced December 16, 2003. After four days of evidence and argument, this order now sets forth the Court's findings of fact and conclusions of law.[1]

FINDINGS OF FACT

The Russian River, all agree, is within the navigable waters of the United States. Its headwaters originate in Mendocino County, California. Its main course runs about 110 miles, flowing into the Pacific Ocean west of Santa Rosa. Before modern times, the Russian River occasionally overflowed its banks and created natural ponds and wetlands along its banks. During high water, it forged new channels, stranding the old channels, creating oxbow lakes, and saturating and supporting adjacent wetlands. All of these ponds and wetlands, together with the river, supported plant life and fish and wildlife in an integrated ecosystem.

With civilization, the river became more controlled. Towns grew up along and near the river. Nearby land was cleared for agriculture and ranching. To protect these developments, levees were built in some places, dams in others, and the channel was dredged for flood control. The river was not completely tamed, however. Even today, large storms overpower the flood controls on occasion. In 1995, during persistent winter rains, the levee between the river and the

[1] Except in instances where citation may be of particular use to the parties or the court of appeals, this order will *not* cite the record, finding it unnecessary and cumbersome.

site here in question, the so-called Basalt Pond in Sonoma County, was breached twice and once again in 1997. In 2002, the flood level reached within a foot of the levee top, even after an extra three vertical feet had been added to the levee.

The Russian River and surrounding area rest on top of a vast gravel bed extending as much as sixty feet into the earth. The gravel bed is the result of ancient processes over geologic time whereby rock was washed downstream, the edges sanded smooth. This resulted in huge deposits of river rock, sand, and gravel. The gravel bed is a porous medium, saturated with water. Through it flows an equally vast underground aquifer. This fact poses two significant points of interest in this case. It explains why so much gravel mining has occurred along the river. It also supplies the principal pathway for a continuous passage of water between Basalt Pond and the Russian River.

Basalt Pond lies alongside and west of the river, the two separated by a levee. Whether a tarn, even a slight one, pre-existed the Basalt Pond excavation is doubtful on this record. Be that as it may, we know that in approximately 1967, the Basalt Rock Company, a division of Dillingham Construction Company, began excavating gravel and sand from the terrace land near the river (as well as other mining locations in the surrounding area). The terrace top soil was ripped away. Large machines then tore out rock and sand. When the water table was reached, drag lines continued the excavation, dropping into the water and pulling out more rock and sand. The ore was hauled away and processed at a nearby plant. The result was a pit. It filled with water up to the line of the water table of the surrounding aquifer, *i.e.*, the pond opened the aquifer to the sky. In this manner, Basalt Pond was created. Today, the pond has 58 acres of surface water. It is a half-mile long and a quarter-mile across. A map of the river and the pond is reproduced in Figure 1.

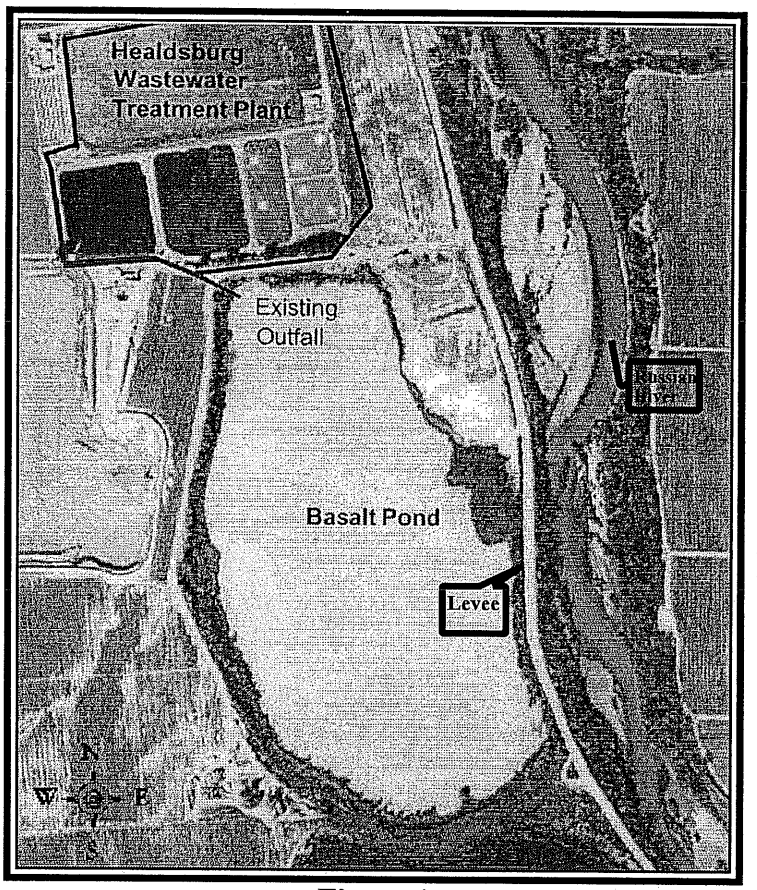

Figure 1

The horizontal distance between the river's edge and the pond's edge varies between fifty and several hundred feet, depending on the exact location and the height of the water. For at least 750 feet along the east side of the pond, the distance is less than 100 to 200 feet at normal water stages (TX 21 at H1365). Normally, there is no surface connection, the levee blocking the way. But for the levee the pond would be inundated by high river waters in the rainy season. As stated, the levee has broken three times in the last eight years, each time the levee being repaired within a few months (Stip. No. 18). To a minor extent, a vestige of uplands remain in some places near the pond, but they are below the levee top and are likewise subject to inundation.

Beneath the surface the story is different. There, water soaks in and out of the pond via the pervasive underground aquifer. This action is continuous, 24 hours a day, seven days a week, 365 days a year. In fact, water from the aquifer flows downhill from the side of the

valley, *through* the pond and *under* the levee — all via the gravel-laden, water-saturated aquifer. The subterranean flow finally bleeds into the river itself or at least a large part of it does. It is stipulated herein that the pond and the river overlie the same unconfined aquifer and that the land separating the two is saturated below the water table. In this sense, the underground aquifer is a slow-moving, underground tributary of the river. The pond is an open way station on the underground tributary.

In an official report, Healdsburg itself has characterized the water system as follows (TX 24 at H3037):

> The groundwater basin is hydraulically connected to the Russian River. In the Russian River Valley, groundwater moves from the margins toward the Russian River during most of the year. Groundwater in the project area generally flows to the southeast with a gentle gradient. When groundwater levels are depressed, usually during the fall, flow in Russia River recharges the groundwater reservoir. River water moves into the alluvium during high river stages in the autumn and winter, and also during the summer in locations where large volumes of water are withdrawn from the river. Most recharge to the groundwater is derived from infiltration of rain that falls on the valley floor and from seepage into permeable deposits that underlie channels of the tributary streams.

Although the Basalt Rock Company began its excavation of Basalt Pond in 1967, excavation ceased in 1984. In 1986, Syar Industries, Inc., acquired all of the local land and business of the Basalt Rock Company. Syar did not resume any extraction at Basalt Pond. Syar, however, carried on and still does carry on extraction at *other* pits in the area. Since 1984, no excavation has occurred at Basalt Pond. No activity at all was underway at the pond between 1984 to 1986 (TX 7 at RW0462–63). Healdsburg itself has referred to Basalt Pond as "an abandoned quarry" (TX 24 at H3038).

Reclamation activities by Syar, however, have been underway at Basalt Pond since 1986. To this end, Syar has pumped a slurry of sand and sediment from its main aggregate processing plant near Healdsburg via a long pipe into Basalt Pond. This slurry is a by-product of rock extracted elsewhere — again, not from Basalt Pond. The outfall from the slurry pipe flows onto the margin of Basalt Pond, the outfall point being moved from time to time, such that the sediment and fill have slowly been filling in and reclaiming the edges of the pond as wetlands.

As well, a considerable amount of sediment has drifted over the entirety of the pond and settled to the bottom, forming a layer that helps filter out pollutants as water drains into the aquifer. Since 1993, Syar has been directed by the county to direct the flow of sediment to the bank near the levee. This is meant to strengthen the levee (on the pond side). The reclamation/slurry process is expected to go on for many years.

Trees and plants have also been planted along the reclaimed margins, all for the purpose of developing man-made wetlands. Most of the plants and trees that inhabit the riparian forests along the river and pond are wind pollinated and disperse their seeds by wind. The result is that similar plants and trees appear in abundance in both locations. A few of the most common include cottonwoods, coyote brush, willows, and red willow trees. Although virtually the entire perimeter of the pond is now wetlands, the predominate wetlands are along the east and southeast margins of the pond. The perimeter is characterized by the presence of vegetation that requires saturated soil conditions for growth and reproduction.

The wetlands, in turn, now support substantial bird, animal and fish populations, all as an integral part of and indistinguishable from the rest of the Russian River ecosystem. Many of the bird populations at the pond are familiar along the river, including cormorants, great egrets, mallards, sparrows, and fish-eaters. Fish indigenous to the river also live in the pond due to the recurring breaches of the levee. As a result, it would be hard to distinguish Basalt Pond from any of the natural wetlands and tarns that have developed alongside the Russian River over the course of time.

In 1971, defendant City of Healdsburg built a secondary waste-treatment plant on a 35-acre site located on the north side of Basalt Pond about 800 feet from and west of the river. Prior to 1978, Healdsburg discharged its wastewater into another water-filled pit located to the north. In 1978, Healdsburg began discharging into Basalt Pond. It continues to do so pursuant to permission from Syar and pursuant to a state water permit. The treated outfall, however, does not meet NPDES standards. No NPDES permit has ever been obtained.

Wastewater discharges to Basalt Pond from the plant were between 420 and 455 million gallons per year between 1998 and 2000. The volume of the pond itself is of the same order of

magnitude — 450 to 740 million gallons. The annual outflow from the sewage plant, therefore, is sufficient to fill the entire pond every one to two years. The pond would, of course, soon overflow in these circumstances were it not for the fact that the pond drains into the surrounding aquifer. Because of this drainage, the pond has reached a steady state in which the "volume in" equals the "volume out."[2]

Much evidence was received at trial on the precise underground relationship between the pond and the river. The normal surface level of the pond is only a few feet higher than the normal level of the river. This conforms to the general terrain by which the underground aquifer, collecting water from the larger drainage of the river valley, flows downhill through the pond and then into the river or river bed. The large quantity of treated sewage has caused the level of the pond water to rise somewhat higher than the normal water table of the groundwater. As stated, the downhill flow passes through the pond, albeit slowly, and eventually moves yet farther downhill. According to Healdsburg's water expert at trial, at least one-fourth of the liquid in the pond finds its way into the river proper. Healdsburg's own environmental impact report gave a higher and more probable estimate: "It is likely that the entire volume of treated wastewater and aggregate wash water discharged to Basalt Pond (2.1 cfs) will eventually migrate to the River, either directly through the aquifer or indirectly" (TX 24 at H3186–87). Pond water will ordinarily take several months to find its way to the river and drains into the river over a stretch as long as 2200 feet. Although the discharges into the pond do not meet NPDES standards, the pollutants are diluted by the time they actually bleed into the Russian River.

In passing through the bottom and sides of the Basalt Pond, the effluent is partially cleansed. This cleansing and settling process is sometimes referred to as "polishing" or "percolation" by Healdsburg. Since groundwater flows through the pond, the flow is not only through the bottom, as Healdsburg contends, but also is through the sides including through the wetlands along the margin of the pond — particularly those heavier wetlands between the pond

[2] The primary "volume in" comes from the plant. The primary "volume out" is drainage to the aquifer. There is also rainfall (in), aquifer leakage (in), and evaporation (out), all lesser factors.

and the levee. These wetlands also help cleanse the outflow by passing the effluent through the wetlands sediment, just as the outflow through the silt bottom likewise filters the fluid. The filtration is effective in reducing biochemical oxygen demand and removing some pollutants.

The filtration is not perfect. The concentrations of chloride in the groundwater between the pond and the river, for example, are substantially higher than in the surrounding area. Chloride, which already exists in the pond due to naturally occurring salts, reaches the river in higher concentrations as a direct result of Healdsburg's discharge of sewage into the pond. Mr. John Lambie, a water trial expert for Healdsburg, testified that the average concentration of chloride appearing *upstream* in the river is only 5.9 parts per million. In contrast, the average concentration of chloride in the water exiting Basalt Pond is 36 parts per million. At a monitoring well between the pond and the river, the underground concentration is diluted to some 30 parts per million. Ultimately, a chloride concentration of 18 parts per million appears on the west side of the river adjacent to the pond. As such, chloride from the pond over time makes its way to the river in higher concentrations than naturally occurring in the river (Tr. 588–92).[3]

The river and the pond rise and fall in tandem. The reason is that they are connected by the aquifer. A relative change in the heads of pressure between the two waterbodies will influence each, almost immediately, causing an adjustment in the surface levels. This influence is "hydraulic," meaning the pressure is transmitted within the underground fluid body itself. One might think that river water was flowing into the pond via the aquifer, but not so. The levels do not rise and fall in tandem for any such reason. Such a direct effect would be difficult,

[3] This finding is further supported by Dr. Larry Russell, one of River Watch's trial experts. Chloride is a highly soluble pollutant that moves with the flow of water. Were it not for the discharge into the river, Dr. Russell stated that the chloride in the pond would build up, thereby making it saltier and saltier from year to year. That, however, is not the case here. The chloride levels in the pond generally remain steady, which means that what Healdsburg discharges into the pond in the form of chloride must go through the groundwater aquifer and eventually out into the river, even if it is in a more diluted form (Tr. 94–95). Although Dr. Russell did not express an opinion as to what quantity of chloride could emerge in the river from the pond, he did examine data taken from the monitoring well fifty feet away from the pond. The data was gathered and presented in an environmental impact report prepared by Healdsburg. The measurements were commensurate with the figures considered by Dr. Lambie in that the chloride levels at the pond and at the well were of the same order of magnitude. Dr. Russell concluded that there was a migration of chloride from the pond through the well and then to the river (Tr. 96–97).

given the slow transit time of water through the sponge-like, gravelly texture of the alluvium. Instead, the reason is, as stated, because the gravel is saturated with water and it instantly transmits any pressure change. Any pressure difference in the river, as it rises and falls, is thus transmitted through the aquifer, which forces groundwater up into the pond or pulls pond water through bottom and side layers down into the alluvium, as the case may be. The above represent the findings necessary to address the main conclusions of law. For clarity and ease in presentation, additional findings will be made below.

CONCLUSIONS OF LAW

The Clean Water Act of 1972 established two programs of importance to this case. Section 402 authorized the Environmental Protection Agency to administer the National Pollution Discharge Elimination System (NPDES). Under Section 301(a), sewage treatment facilities and other point sources were barred from making discharges into the navigable waters of the United States without an NPDES permit. 33 U.S.C. 1311(a). The Act allowed EPA to authorize state agencies to administer the NPDES program. In most states, including California, the NPDES program is administered by state agencies pursuant to federal standards. The second program of note herein was authorized by Section 404. It prohibited dredging or filling of any navigable waters of the United States without a permit from the Army Corps of Engineers. 33 U.S.C. 1344. Thus, the jurisdictional reach of both programs depends on the term "navigable waters of the United States."

All agree herein that the Russian River falls within the "navigable waters of the United States." The Healdsburg system is a "point source." All agree that Healdsburg has never had an NPDES permit. The issue is whether Basalt Pond and/or its wetlands fall within the navigable waters of the United States such that an NPDES permit is required.

If Healdsburg were required to apply for and obtain an NPDES permit, it would be subject to regulation over and above that imposed by its state-issued permits. For example, Healdsburg currently chlorinates its treated sewage but is not required to de-chlorinate it prior to discharge into Basalt Pond. This would change if the pond were within the "navigable waters of the United States." Healdsburg would then need an NPDES permit and be required to

de-chlorinate its treated sewage prior to discharge (Tr. 295–96). Thereafter, to ensure compliance with the Act, Healdsburg would have to establish and maintain records and install, use, and maintain equipment to monitor and sample the chlorine (or any other pollutant) present in its discharge. On a regular basis, compliance reports would have to be submitted to the California Regional Water Quality Control Board for review.

1. THE NAVIGABLE WATERS OF THE UNITED STATES.

The "navigable waters of the United States" is a term of venerable vintage, first appearing as "navigable waters" in the celebrated case of *Gibbons v. Ogden*, 22 U.S. 1, 21–22 (1824), and then in full form in *Mayor of New York v. Miln*, 36 U.S. 102, 135 (1837). It defines a federal servitude, derived from the commerce clause, that overlays what might otherwise be considered state waters. After decades of federal common-law usage, Congress adopted the term to set the jurisdictional limits of numerous river, harbor, and waterway laws.

The Clean Water Act of 1972 defined the term "navigable waters" to mean "waters of the United States, including the territorial seas." 33 U.S.C. 1362(7). This definition is an important one, for it defines the outer jurisdictional limits of two federal agencies under the Act — the Environmental Protection Agency and the Army Corps of Engineers. The manifest intent was expansive — to cover not just waters deemed navigable under the traditional test but to cover any waters affecting interstate commerce. *Leslie Salt Co. v. United States*, 896 F.2d 354, 357 (9th Cir. 1990). Even under the narrowest definition, it is generally agreed that the term covers (i) actually navigable waters, (ii) their tributaries, and (iii) wetlands adjacent to each. This case presents issues under both the "tributary" prong and the "wetlands" prong. The latter will be considered first.

2. WETLANDS.

After the Act was passed, an issue arose concerning the extent to which adjacent wetlands were covered. Subdividers, developers and others wished to fill in wetlands and build. In 1978, the Army Corps of Engineers, however, issued an interpretative ruling stating that "adjacent wetlands" were within the protection of "waters of the United States." This brought such wetlands under Section 404 of the Act which prohibits dredging or filling without a permit

from the Corps. 33 U.S.C. 1344. Although the wetlands regulation has been reissued from time to time, and twice reviewed by the Supreme Court, the language here relevant has been in the regulation all along.

Under the interpretive regulation, the term "waters of the United States" includes "[w]etlands adjacent to" a navigable water like the Russian River. 33 C.F.R. 328.3(a)(7) (2003).

In turn, the term "wetlands" is defined as follows:

> The term *wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Id. at 328.3(b).

"Adjacent," in turn, is defined as follows:

> The term *adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

Id. at 328.3(c).

The interpretive rule of the Army Corps of Engineers was litigated all the way to the United States Supreme Court by a Michigan owner of a housing developer, Riverside Bayview Homes, Inc. Ruling for the developer, the Sixth Circuit had limited jurisdiction over wetlands to those created by frequent flooding of the nearby navigable waters and excluded wetlands saturated by groundwater or surface water. The Supreme Court reversed and sustained the broader reach of the Act over wetlands as defined in the regulation. The Supreme Court recognized that some point must be found where water ends and land begins. *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 132 (1985). In this transitional zone, a regulatory definition was warranted. When the purposes of the Act were considered, the Supreme Court found a more expansive regulation of wetlands under the Act was reasonable and deferred to the Corps' interpretation (*id.* at 132–33):

> Faced with such a problem of defining the bounds of its regulatory authority, an agency may appropriately look to the legislative

> history and underlying policies of its statutory grants of authority. Neither of these sources provides unambiguous guidance for the Corps in this case, but together they do support the reasonableness of the Corps' approach of defining adjacent wetlands as "waters" within the meaning of § 404(a). Section 404 originated as part of the Federal Water Pollution Control Act Amendments of 1972, which constituted a comprehensive legislative attempt "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." CWA § 101, 33 U.S.C. § 1251. This objective incorporated a broad, systemic view of the goals of maintaining and improving water quality: as the House Report on the legislation put it, "the word 'integrity' . . . refers to a condition in which the natural structure and function of ecosystems [are] maintained." H.R. Rep. No 92–911, p. 76 (1972). Protection of aquatic ecosystems, Congress recognized, demanded broad federal authority to control pollution, for "[w]ater moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source." S. Rep. No. 92–414, p. 77 (1972).

The Supreme Court repudiated the notion that wetlands themselves had to be navigable (*id.* at 133):

> In keeping with these views, Congress chose to define the waters covered by the Act broadly. Although the Act prohibits discharges into "navigable waters," see CWA §§ 301(a), 404(a), 502(12), 33 U.S.C. §§ 1311(a), 1344(a), 1362(12), the Act's definition of "navigable waters" as "the waters of the United States" makes it clear that the term "navigable" as used in the Act is of limited import. In adopting this definition of "navigable waters," Congress evidently intended to repudiate limits that had been placed on federal regulation by earlier water pollution control statutes and to exercise its powers under the Commerce Clause to regulate at least some waters that would not be deemed "navigable" under the classical understanding of that term. See S. Conf. Rep. No. 92–1236, p. 144 (1972); 118 Cong. Rec. 33756–33757 (1972) (statement of Rep. Dingell).

The Supreme Court found reasonable the agency's conclusion "that adjacent wetlands are inseparably bound up with the 'waters' of the United States." *Id.* at 134. In part, the Supreme Court stated (*ibid.*):

> . . . The Corps has concluded that wetlands may affect the water quality of adjacent lakes, rivers, and streams even when the waters of those bodies do not actually inundate the wetlands. For example, wetlands that are not flooded by adjacent waters may still tend to drain into those waters. In such circumstances, the Corps has concluded that wetlands may serve to filter and purify water draining into adjacent bodies of water, see 33 CFR § 320.4(b)(2)(vii) (1985), and to slow the flow of surface runoff into lakes, rivers, and streams and thus prevent flooding and erosion, see §§ 320.4(b)(2)(iv) and (v). In addition, adjacent wetlands may "serve significant natural biological functions, including food chain production, general habitat, and nesting,

> spawning, rearing and resting sites for aquatic . . . species." § 320.4(b)(2)(i). In short, the Corps has concluded that wetlands adjacent to lakes, rivers, streams, and other bodies of water may function as integral parts of the aquatic environment even when the moisture creating the wetlands does not find its source in the adjacent bodies of water.

This ringing language is now invoked by River Watch. Without question, *Riverside Bayview* militates in favor of an expansive view of Clean Water Act jurisdiction over wetlands. Healdsburg contends, however, that a later decision by the Supreme Court limited *Riverside Bayview*. More specifically, Healdsburg maintains the Supreme Court has now imposed a "hydrological-connection" requirement or, to state what Healdsburg really means, a "*surface* hydrological-connection" requirement.

It is true that *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*, 531 U.S. 159 (2001) ("*SWANCC*"), held that the Corps had gone too far in asserting jurisdiction over a series of nonnavigable, intrastate, isolated, and abandoned mining pits away from any navigable waters and whose only connection to navigable water was that migratory birds used both as habitat. In rejecting the Corps' so-called "migratory-bird rule," a wetlands rule added by the Corps in 1986 to reach isolated intrastate waters, the Supreme Court said: "The term 'navigable' has at least the import of showing what Congress had in mind as its authority for enacting the CWA: its traditional jurisdiction over waters that were or had been navigable in fact or which could reasonably be so made." *SWANCC*, 531 U.S. at 172.

Although the Ninth Circuit has not yet ruled on the restrictive theory advanced by Healdsburg, the Ninth Circuit seems to have read *SWANCC* as only invalidating the migratory-bird rule as applied to isolated waters. *Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F.3d 526, 533 (9th Cir. 2001). At all events, as this Court reads it, *SWANCC* did not impose a rule of "hydrological connection," much less a rule of "*surface* hydrological connection."

SWANCC dealt specifically with physically *isolated* rather than *adjacent* waterbodies. The Supreme Court recognized this when it stated:

> We found [in *Riverside Bayview*] that Congress' concern for the protection of water quality and aquatic ecosystems indicated its intent to regulate wetlands "inseparably bound up with the 'waters' of the United States."

> It was the significant nexus between the wetlands and "navigable waters" that informed our reading of the CWA in *Riverside Bayview Homes*. Indeed, we did not "express any opinion" on the "question of the authority of the Corps to regulate discharges of fill material into wetlands that are not adjacent to bodies of open water . . . ." In order to rule for [the Corps] here, we would have to hold that jurisdiction of the Corps extends to ponds that are *not* adjacent to open water. But we conclude that the text of the statute will not allow this.

SWANCC at 167–68 (citations omitted and emphasis in original). Rather than impose a hydrological-connection requirement, *SWANCC* reaffirmed that wetlands (and other waterbodies like ponds) *adjacent to navigable waters* share a significant nexus worthy of protection under the Clean Water Act. *See id.* at 171 (acknowledging that "it is . . . plausible . . . that Congress simply wanted to include all waters adjacent to 'navigable waters' such as nonnavigable tributaries and streams"). *SWANCC* does not impose a hydrological-connection requirement for adjacent wetlands and waters.

Therefore, even in its narrowest reading, *SWANCC* appears to recognize jurisdiction over (i) actually navigable waters, (ii) their tributaries, and/or (iii) wetlands adjacent to each.

Once adjacency is established, the tributary issue is superfluous. Once wetlands are found to be adjacent to a river actually navigable, there is no need to investigate whether the wetlands are interconnected by surface or groundwaters. The regulation, approved in *Riverside Bayview*, recognizes this in stating that wetlands separated by berms or levees are covered. Plainly, a berm or levee is inconsistent with any surface connection. No caselaw is cited holding that adjacent wetlands must also have a surface hydrological connection.

Although the Corps does not administer the NPDES program — EPA does so in conjunction with state agencies — EPA has adopted a parallel definition for wetlands. 40 C.F.R. 122.2 (2003). Since the Act authorizes both the NPDES regulation and the dredge-and-fill regulation, their jurisdictional scope should be the same. Therefore, it is proper to use the Corps' definition in this NPDES case.

Applying the regulation to the facts of this case, this order now holds that Basalt Pond and its wetlands are "adjacent" to the Russian River within the meaning of the regulation. The Basalt Pond wetlands are within a few hundred feet of the Russian River and at points as little as

fifty feet, the difference depending only on the water level of the river and the exact point used along the half-mile long length of the pond. A man-made levee separates the two. The regulation specifically states that "[w]etlands separated from other waters of the United States by man-made dikes or barriers . . . and the like are 'adjacent wetlands.'" 33 C.F.R. 328(c). Again, a surface-water requirement would be inconsistent with this definition, for dikes and barriers and levees are manifestly intended to prevent a surface-water connection. Although the Supreme Court held in *Riverside Bayview* that there is no requirement that the wetlands be inundated periodically by the river, the wetlands at issue would, in fact, be flooded in the rainy season but for the levee.

While such a connection is unnecessary for jurisdiction purposes, there is, in fact, an intimate and persistent hydrological connection, albeit underground. The pond drains into the aquifer and at least 26 percent of the pond's volume concededly surfaces in the river itself (and this order finds that substantially more drains actually into the river). There is also an immediate underground hydraulic connection between the two bodies, such that the water level in each immediately affects the water level in the other. Even on the *surface*, there is an episodic connection; when the levee breaches, as it has three times in the last eight years, the two waterbodies substantially commingle.

Finally, as in *Riverside Bayview*, the pond, the river, and the wetlands all share the same ecosystem. The wetlands in question help filter pollutants entering the aquifer and hence the river proper.[4] In every way the pond and wetlands are "adjacent to" the Russian River. Healdsburg's own trial expert on wetlands, a private consultant for hire on the Corps' regulations, even admitted that the pond could be considered a type of wetland defined by

[4] To avoid the observation in *Riverside Bayview* that wetlands serve to filter and to purify waters, Healdsburg argues that no water filters through the *sides* of Basalt Pond and that all the water exits *only* through the *bottom* of the pond. This curious suspension of the laws of physics fails on the facts, as found above. Given that Healdsburg also argues the bottom of the pond is up to a million times less permeable than the surrounding aquifer — practically hermetically sealed — there is all the more reason that fluid must drain, at least in part, through the sides and through the wetlands to avoid overflowing (as millions of gallons yearly pour in from the plant).

Section 404 of the Clean Water Act (Tr. 402–03). In short, the pond and the wetlands are "waters of the United States" within the meaning of the Act.[5]

3. OPEN WATERS VS. WETLANDS.

The accused discharges, Healdsburg contends, are to "open water," not to the sides of the pond where the wetlands reside. This argument draws a sharp distinction between the middle and sides of the water body. Healdsburg contends it may discharge with impunity into the middle. The argument, however, fails on the facts. The outfall is at the northwest corner of the pond, not in the center. The pond is now surrounded by wetlands. Healdsburg's own wetlands expert testified that virtually the entire perimeter qualifies as "wetlands" (Tr. 406). The discharges at the northwest corner near the wetlands must be deemed into the wetlands.

Even if the outfall were in the dead center of Basalt Pond, the pond is sufficiently small that the entire pond must be deemed to be inseparably bound up in the wetlands now surrounding it. The saturated margins of the pond — concededly wetlands — are, of course, part of the pond itself. The margins meld into water in one direction and into land in the other. Sediments from the shoals spread across the pond and sink to the underwater sides and bottom. Wetlands are typically characterized by wet earth interspersed with open pools, inlets, outlets and other water. At some size, a pond surrounded by wetlands becomes so small with such a cross-identity of ecology and with such a cross-identity of water quality, that the pond must be deemed inseparable from the wetlands rather than a separate sheet of open water. So here.[6]

An alternative way to view the problem, reaching the same result, is that the pond itself is a "point source" directly abutting and discharging into the wetlands. There is substantial merit to this conclusion since Healdsburg itself argues vigorously that the pond is an integral part of its treatment facility, supplying a final step it calls "percolation" or "polishing." If so, the entire

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[5] Contrary to Healdsburg's argument, it does not matter that the wetlands were man-made. *Leslie Salt Co.*, *supra*, 896 F.2d at 358.

[6] On summary judgment, this Court previously held that, regardless of the wetlands here involved, ponds adjacent to navigable rivers and sharing the same ecosystem and having underground connection to the river are subject to Clean Water Act jurisdiction. The Basalt Pond would so qualify even without the wetlands (absent an exception). This is an alternative ground for rejecting the "open-water" argument advanced by Healdsburg.

pond must be deemed a "point source" — otherwise, Healdsburg would have no point source at all. The term "point source" has been taken beyond pipes and ditches and now includes less discrete conveyances, such as cesspools and ponds. An analogous holding was made concerning a 38-acre man-made tailing pond in *Washington Wilderness Coalition v. Hecla Min. Co.*, 870 F. Supp. 983, 988 (E.D. Wash. 1994); *see also Community Ass'n for Restoration v. Bosma Dairy*, 305 F.3d 943, 955 (9th Cir. 2002). So viewed, the point source is right in the middle of and directly abuts the protected wetlands.

This leads to Healdsburg's invocation of an express exception under the regulation. The definition of "waters of the United States" excludes:

> Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

33 C.F.R. 328.3(a) (last paragraph).

This exception does not aid Healdsburg. Although the Healdsburg waste-treatment system was designed so as to use a former mining pit like the Basalt Pond as a percolation pond, and it was intended that natural filtration would occur as fluid percolated through the lining of the pond, this order holds that Basalt Pond itself was not "designed" to meet the requirements of the Clean Water Act or "designed" to be part of the waste-treatment system. The pond preexisted the plant. It preexisted the Clean Water Act. The pond was not "designed" with sewage disposal in mind. The pond was simply the result of digging a pit in the earth that filled with groundwater. No doubt, the actual plant was "designed" to take advantage of abandoned mining pits like Basalt Pond, but the pits themselves were not so "designed."

4. TRIBUTARY.

Although it is unnecessary to reach it, this order also holds that Basalt Pond and the subterranean groundwater that flows through it are "tributaries" of the Russian River. This order recognizes that the caselaw is divided over whether the "tributary" prong can be satisfied by *groundwater* as opposed to surface waters. The Ninth Circuit has not yet addressed the question. This Court finds persuasive the line of authority represented by *Idaho Rural Council v. Bosna*, 143 F. Supp. 2d 1169, 1178–80 (D. Idaho 2001), holding that the Act extends federal jurisdiction

over groundwaters hydrologically connected to surface waters that are themselves navigable waters.

It is urged that no discernible impact on the river has been shown and therefore a *sine qua non* of jurisdiction is missing under *Bosna* and similar cases. Contrary to Healdsburg, however, the record shows that excessive amounts of chloride from Healdsburg's effluent in fact pollute the river. The record shows actual measurements from the monitoring wells between the pond and the river showing pollution. One may reasonably infer, as this order does, that this pollution reaches the nearby river. It, of course, is then greatly diluted by the river. Nonetheless, the total volume of pollutants reaching the river over a year is substantial. This is an alternative ground for concluding that Basalt Pond and the wetlands are within the navigable waters of the United States.[7]

5. ABANDONMENT OF EXCAVATION OPERATIONS.

The final argument made by Healdsburg is not based on any statute or regulation or caselaw but on an agency statement in a preamble to the 1986 revision of the wetlands regulation. In the preamble, the Corps stated that it usually does not consider "pits excavated in dry land for the purpose of obtaining fill, sand, or gravel" to be "waters of the United States . . . until . . . [the] excavation operation is abandoned. . . ." Here is the background.

Pursuant to a directive of the Presidential Task Force on Regulatory Relief, the Corps proposed revisions to its Clean Water Act regulation. After public input, the definitions relevant here were not changed and were simply recodified at 33 C.F.R. 328.3 (1987). In its preamble to the Federal Register announcement, however, the Corps added a clarification:

> For clarification it should be noted that we generally do not consider the following waters to be "Waters of the United States." However, the Corps reserves the right on a case-by-case basis to determine that a particular waterbody within these categories of waters is a water of the United States. EPA also has the right to determine on a case-by-case basis if any of these waters are "waters of the United States."

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[7] For this, among other reasons, plaintiff has standing to bring this suit, for a remedial order will benefit the river. It is stipulated that plaintiff has standing to bring this action to vindicate aesthetic and recreational interests concerning the river.

> (a) Non-tidal drainage and irrigation ditches excavated on dry land.
>
> (b) Artificially irrigated areas which would revert to upland if the irrigation ceased.
>
> (c) Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
>
> (d) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
>
> *(e) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)).*

51 Fed. Reg. 41206, 41217 (1986) (emphasis added).

The comment has never been reduced to a formal regulation. Nonetheless, this order will treat the preamble statement as entitled to deference concerning the agency's own interpretation of its own wetlands regulations and will give it full effect.

Healdsburg urges that the paragraph concerning excavated mining pits, italicized above, saves it from NPDES regulation. Healdsburg argues that Syar has not "abandoned" its "excavation operation" at Basalt Pond because, although excavation itself ceased long ago, the reclamation slurry is still underway. As long as Syar is continuing to reclaim the pond, no matter how slowly, then jurisdiction is absent, Healdsburg urges.

This order rejects the argument. Healdsburg itself, in a recent environmental impact report, called Basalt Pond "an abandoned quarry" (TX 24 at H3038). No rock or sand has been excavated from Basalt Pond since 1984. It is stipulated herein that "excavation at Basalt Pond ceased in approximately 1984" and that Syar conducts "pit-excavation activities" on "nearby lands," there being no similar stipulation as to Basalt Pond. In fact, Syar itself has never extracted rock or sand from the pond, having acquired it after all such extraction was over. Instead, its only operation has been *to insert, not to extract*, silt. The silt, moreover, is not even from Basalt Pond but from elsewhere. The silt is the by-product of processing sand and gravel

(again, from elsewhere) and is pumped via a long pipe to Basalt Pond, where it is slowly being fed into the margins of the pond, the feed point being moved from time to time. This is being done pursuant to a local order to reclaim the pond.

Healdsburg would stretch "excavation operation," as used in the preamble, to comprehend not only excavation but steps taken thereafter to fill the pit. The word "excavation" cannot bear this reading. As the preamble sentence in question states, excavation is "for the purpose of *obtaining* fill, sand, or gravel." It is not for the purpose of filling in or remediating the pit after excavation has ceased. Filling in and extraction are opposites. Once filling in begins, extraction is foreclosed and must be deemed abandoned. *Golden Gate Audubon Soc., Inc. v. United States Army Corps of Engineers*, 796 F. Supp. 1306, 1315 (N.D. Cal. 1992) (Henderson, J.). There is also a big difference in terms of water quality between *extracting* natural materials from a pit versus *filling up* a pit with foreign matter that could be anything from dirt to wastes to toxics. Any doubt should be resolved against any exclusion, in order to promote the purpose of the Act. *United States v. Akers*, 785 F.2d 814, 819 (9th Cir. 1986).

Even the preamble refused to say that all pits would be ignored. Instead, the preamble merely stated how the Corps "generally" considered them and acknowledged that pits would be subject to jurisdiction on a case-by-case basis under Section 404. EPA likewise so reserved case-by-case jurisdiction under Section 402. Necessarily, this means that at least some water-filled pits are waters of the United States. In deciding which are which, we must harken back to *Riverside Bayview* and the fundamental objectives of the Act. We should, therefore, consider the proximity to the river, the beneficial role of the wetlands, the intertwined ecology and riparian habitat. Rather than focus only on Syar's desultory slurry, the focus should also be on the gushing flow of treated sewage into the pond. Once thriving wetlands have curled about such a site, it would be topsy turvy to reject protective jurisdiction solely because reclamation efforts are underway. Indeed, a contrary ruling would allow dumping of *anything* by *anyone* Syar licensed insofar as federal law is concerned.

While the foregoing is dispositive of Healdsburg's argument, this order must reject plaintiff's alternative ground in opposition. The argument is that the pit was abandoned from

1984 to 1986 and was by then already within the navigable waters of the United States. Between 1984 and 1986, there was no commercial activity of any kind at the pond, even remediation (TX 7 at RW0462–63). The pit was idle without any question in that two-year period. The pond then would have been subject to jurisdiction so long as the pond otherwise qualified as a water of the United States. Plaintiff so urges. The difficulty with plaintiff's alternative argument is that the wetlands around the pond developed *after* 1986. The thriving aquatic life portrayed at trial as part of the integrated ecosystem all came *later*. The record does not show that the pit, even though abandoned in 1984–86, qualified *then* as a wetland or as water of the United States. Plaintiff's alternative argument therefore must be rejected.

6. THE DISTRICT OFFICE LETTER.

This leads, finally, to the refusal by the district office of the Corps of Engineers to assert jurisdiction over Basalt Pond, a separate point of deference urged by Healdsburg. This has proven to be one of the more remarkable aspects of the case. In brief, at a time when Syar was still a party herein, plaintiff's counsel asked the Corps' district office to assert jurisdiction over Basalt Pond. It declined to do so. Healdsburg now argues that deference is due to the judgment of the district office to decline jurisdiction, the NPDES jurisdiction being coextensive with the Corps' jurisdiction.

Although deference is due to a reasonable agency interpretation of a statute administered by the agency and to nationally-promulgated interpretations of its own regulations, a different problem is presented in deciding how much deference is due to a single refusal to act by a single district office of an agency. Before turning to the law that governs, it is most illuminating to review what actually happened here. The following seven paragraphs constitute the Court's further findings, placed here for convenience and clarity in presentation, on the issue of the Corps' letter.

After this litigation began and before Syar settled out, plaintiff's counsel wrote a letter to the district office of the Corps of Engineers in San Francisco. Counsel supplied information. He requested that the Corps determine that the Basalt Pond wetlands were "waters of the United States."

The response was prepared by Peter Straub, a Corps employee. After receiving the letter, Mr. Straub solicited input from personnel at Syar, whom he admitted at trial were his personal friends. He knew that Syar was then still a defendant. Syar's letter warned Mr. Straub that the request from plaintiff's counsel should be viewed "with skepticism" and that counsel was "attempting to embroil the Corps in these lawsuits." Syar's input showed that reclamation activity was still underway via the slurry described above.

Mr. Straub circulated an internal e-mail within the district office. In the e-mail, he explicitly referred to plaintiff's counsel and Clean Water Act suits in a derogatory and unprofessional way, stating that plaintiff's counsel "reaps money from the public trough by engaging in citizen lawsuits involving the CWA, ESA, etc." After referring, correctly at first, to plaintiff counsel as Silver & Silver, Mr. Straub changed it to "Slither & Slither" in later references in the same e-mail. He further noted the pendency of the present case and ventured that plaintiff's counsel had requested the Corps' action to bolster plaintiff's case, stating that the suit would "have greater merit if the Corps were to exert jurisdiction . . ." (TX 7 at RW0460).

The e-mail was four paragraphs long, all on one page. The lengthiest paragraph was devoted to demeaning plaintiff's counsel, their motives and the lawsuit. The e-mail concluded that "the Basalt Pond has not been abandoned" and requested the "thoughts" of the four agency recipients of his e-mail. The record shows no responsive analysis by anyone. The record shows no other analytical memos or e-mails by Mr. Straub. The record shows no reprimand or censure of Mr. Straub.

Healdsburg presented Mr. Straub as a trial witness. Significantly, he conceded that in thinking through the issue, he did not focus on whether the reclamation slurry was an "excavation operation" within the meaning of the preamble (Tr. 445–46; 456; 465). Indeed, his final letter to counsel even recognized that "mining operations" had long since ceased (TX 7 at RW0480). Rather, his focus was solely on whether any associated activity whatsoever was still being conducted at Basalt Pond by the owner. In other words, his view was that as long as the owner had any activity underway relating to the pond, however slight, then there was no "abandonment" within the meaning of the preamble and thus no jurisdiction.

There is no evidence that Mr. Straub or anyone else consulted a national, regional or even local guideline or any set of internal precedents or any expert on the subject within the Corps. Although the Chief of Engineers periodically issues Regulatory Guidance Letters with formal policy guidance to local offices, no such RGL was obtained here or consulted insofar as the record shows. There is no evidence that Mr. Straub or anyone else in the chain of review in the district office had experience or training on the issue raised. No one inspected the property in response to the inquiry. No one examined the wetlands or the effluent discharges.[8] No one took into account that the pond was an "abandoned quarry," as Healdsburg itself had stated. Mr. Straub simply drafted a short letter declining jurisdiction and sent it up the chain of local command, which signed off without comment shown on this record, and the letter went out.

Mr. Straub was biased against this lawsuit and the lawyers behind it. Mr. Straub knew, even stated, that an exercise of jurisdiction would aid plaintiff and counsel who "reap money from the public trough by engaging in citizen lawsuits." He knew that to do so would hurt his admitted friends at Syar, then a defendant in the case. Although Mr. Straub denied at trial that he *was* biased or that his unkind remarks affected his analysis, his e-mail spoke louder and with more candor. Plainly, he *was* biased against plaintiff and this suit. This order so finds. The Court disbelieves Mr. Straub's attempt to brush off his bias. Moreover, no special expertise was brought to bear, it being completely unclear whether Mr. Straub had any experience or training on the subject. No reasonable investigation was conducted. No attempt to perform a case-by-case analysis was made as stated by the preamble. No account was taken of the wetlands, the proximity to the river, the ecology, or the large tonnage of treated sewage flowing into the pond and wetlands. Although Mr. Straub and one of his colleagues testified at trial, neither attempted to re-affirm the conclusions reached in the letter. Their testimony was instead limited to the historical facts leading up to the letter itself.

* * *

[8] The Corps has no jurisdiction respecting NPDES permits. It does have jurisdiction over filling wetlands (and other waters of the United States) and permits therefor. Plaintiff tries to use this distinction to dismiss the letter as irrelevant. Not so. Plaintiff otherwise itself relies upon the Corps' own wetland regulation. Having invoked the Corps' wetland regulation, plaintiff cannot run away from any and all attempts by the Corps to interpret its regulation. Rather, the question is how persuasive the attempt is.

How much deference is due to the district office's refusal to act? Healdsburg's counsel would invoke the letter with all the full-dress deference required by *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842–45 (1984). Of course, the Supreme Court there held that a court must give effect to an agency's regulations containing a reasonable interpretation of an ambiguous statute. But as counsel must surely know, the Supreme Court has limited *Chevron* and refused to apply it to a localized letter like the one at issue here. In *Christensen v. Harris County*, 529 U.S. 576, 587 (2000), for example, the Supreme Court refused to give any deference to an agency interpretation contained in an agency opinion letter without any formal adjudication or notice-and-comment rulemaking:

> Here, however, we confront an interpretation contained in an opinion letter, not one arrived at after, for example, a formal adjudication or notice-and-comment rulemaking. Interpretations such as those in opinion letters — like interpretations contained in policy statements, agency manuals, and enforcement guidelines, all of which lack the force of law — do not warrant *Chevron*-style deference. See, *e.g.*, *Reno v. Koray*, 515 U.S. 50, 61 (1995) (internal agency guideline, which is not "subject to the rigors of the Administrative Procedur[e] Act, including public notice and comment," entitled only to "some deference" (internal quotation marks omitted)); *EEOC v. Arabian American Oil Co.*, 499 U.S. 244, 256–258 (1991) (interpretative guidelines do not receive *Chevron* deference); *Martin v. Occupational Safety and Health Review Comm'n*, 499 U.S. 144, 157 (1991) (interpretative rules and enforcement guidelines are "not entitled to the same deference as norms that derive from the exercise of the Secretary's delegated lawmaking powers"). See generally 1 K. Davis & R. Pierce, Administrative Law Treatise § 3.5 (3d ed. 1994). Instead, interpretations contained in formats such as opinion letters are "entitled to respect" under our decision in *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944), but only to the extent that those interpretations have the "power to persuade," *ibid.* See *Arabian American Oil Co.*, *supra*, at 256–258.

Similarly, in *United States v. Mead Corp.*, 533 U.S. 218, 235 (2001), the Supreme Court refused to give *Chevron* deference to a ruling letter of the Customs Service regarding a tariff classification. The Supreme Court held it was only entitled to "seek a respect proportional to its power to persuade." The Court noted that "there would have to be something wrong with a standard that accorded the status of substantive law to every one of 10,000 'official' customs classifications rulings turned out each year from over 46 [customs] offices placed around the

country at the Nation's entryways." *Id.* at 238 n. 19. So too here. The Corps has 36 district offices, nine division offices, and countless employees in positions like Mr. Straub.

In evaluating the "power to persuade," *Mead* stated (*id.* at 228):

> . . . The fair measure of deference to an agency administering its own statute has been understood to vary with circumstances, and courts have looked to the degree of the agency's care [footnote omitted], its consistency [footnote omitted], and relative expertness [footnote omitted], and to the persuasiveness of the agency's position, see *Skidmore, supra*, at 139–140. The approach has produced a spectrum of judicial responses, from great respect at one end, see, *e.g.*, *Aluminum Co. of America v. Central Lincoln Peoples' Util. Dist.*, 467 U.S. 380, 389–390 (1984) ("'substantial deference'" to administrative construction), to near indifference at the other, see, *e.g.*, *Bowen v. Georgetown Univ. Hospital*, 488 U.S. 204, 212–213 (1988) (interpretation advanced for the first time in a litigation brief).

Mead then summed up with a quote from *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944):

> The weight [accorded to an administrative] judgment in a particular case will depend upon the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control.

Applying these factors here, the Corps' letter was not "thorough," nor was the "investigation" preceding it. Nor was the letter or investigation "reasonable," given the manifest prejudice of the staffer principally charged with generating the opinion and the thinness of the inquiry. No attempt was made to perform a case-by-case analysis as reserved by the preamble. As for consistency, no evidence shows that the letter was consistent with other rulings. There is no evidence that anyone with special expertise on the issue ever touched the file. To this Court, the ruling seems completely inconsistent with the preamble itself as to the meaning of "excavation operations." The Court has carefully considered the letter and its reasoning as well as the remedial purposes of the Clean Water Act, finding the letter unpersuasive on the merits for all of the reasons stated above.

* * *

The foregoing sets forth the principal findings of fact and conclusions of law. The parties, however, submitted findings and conclusions after trial. This order will now approve

certain of those submissions. To the extent not inconsistent with the foregoing, this order approves plaintiff's proposed findings of fact numbered 3, 7–8, 11, 13, 14–15, 17–23, 25–27, 30–39, 44–45, 47–48, 50, 53–56, 58–59, 61–74, 76–79, 81–82, and 85, and plaintiff's proposed conclusions of law numbered 2–7, 11–19, 27, 32, 33, and 38. This order also approves defendant's proposed findings of fact numbered 1–2, 4, 6–7, 10, 12–15, 18, 20–21, 30, 33, 38(A)–(D), (G)–(M), (O)–(V), (X) (but not the lead-in to No. 38), 39(A)–(B), (G)–(I) (but not the lead-in to No. 39), 41(F)–(G) (but not the lead-in to No. 41), 43, 46, 47, 49, 53–61, 63–65, 69–70, 75–77 (except during flooding), 79 (but how uniform the layer is was not established), 85–87, 92, and defendant's proposed conclusions of law numbered 3 and 12. Unapproved proposals were unapproved for a variety of reasons. For instance, some proposals were (i) argumentative or conclusory, (ii) misleading or confusing, overly broad or vague, or (iii) arguably correct but better covered by the Court's own findings. Given that some findings were rejected because they were better covered in the text of this order or were confusing or argumentative, it does not necessarily follow that the Court affirmatively disagreed with all unapproved proposals (and counsel should please not argue otherwise on appeal).

Some proposals, although supported by the testimony, were rejected because the Court found the testimony unpersuasive. For example, defendant's water expert, Mr. Lambie, offered large conclusions based on small evidence, *i.e.*, he tried to take a little bit of empirical evidence too far. His methodology, for example, was to compare *real* groundwater contamination measurements *above* the pond with *hypothetical* groundwater measurements modeled by him *below* the pond (rather than take real-world samples). His conclusion that the bottom layer of the pond is up to one million times denser than the surrounding aquifer is very hard to believe, given that such a figure would make it so impermeable, practically a hermetic seal, that the pond would overflow or drain only through the sides (rather than percolate through).[9]

[9] Healdsburg makes the impermeable-bottom argument in an attempt to show that the pond is "designed" to be a "closed" system with a "hydrologic separation" from the river and groundwater, an issue this order finds unnecessary to reach. Obviously, however, a membrane permitting percolation is inconsistent with an impermeable membrane.

RELIEF

Defendant Healdsburg is **ORDERED** to take immediate steps to obtain an NPDES permit and will be **ENJOINED** from making any further discharges into Basalt Pond without an NPDES permit effective **APRIL 22, 2004**, or effective upon such later date Healdsburg can show on noticed motion is the earliest practicable date for obtaining such a permit. A hearing will be held at **8:00 A.M.** on **FEBRUARY 26, 2004**, to determine the extent of any penalties, each side to submit briefs **TEN CALENDAR DAYS** before. A separate order shall issue concerning attorney's fees.

IT IS SO ORDERED.

Dated: January 23, 2004.

WILLIAM ALSUP
UNITED STATES DISTRICT JUDGE

UNITED STATES DISTRICT COURT

FOR THE

NORTHERN DISTRICT OF CALIFORNIA

NORTHERN CALIFORNIA RIVER,

Plaintiff,

v.

CITY OF HEALDSBURG,

Defendant.
_____/

Case Number: CV01-04686 WHA

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that I am an employee in the Office of the Clerk, U.S. District Court, Northern District of California.

That on January 23, 2004, I SERVED a true and correct copy(ies) of the attached, by placing said copy(ies) in a postage paid envelope addressed to the person(s) hereinafter listed, by depositing said envelope in the U.S. Mail, or by placing said copy(ies) into an inter-office delivery receptacle located in the Clerk's office.

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Dated: January 23, 2004

Richard W. Wieking, Clerk
By: D. Toland, Deputy Clerk